



UNC SECTION 457(B) PLAN - UNIV. OF NORTH CAROLINA AT CHARLOTTE

Investment Performance as of 3/31/2023

The performance data quoted represents past performance, and is no guarantee of future results. Your returns and the principal value of your investment will fluctuate so that your mutual fund shares and annuity account accumulation units, and shares or units of the investment vehicles in your model-based accounts, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than the performance quoted. The net asset values used to calculate the hypothetical account performance for model-based accounts are compiled using values for underlying funds as of the prior business day and current business day for fixed annuities. For performance current to the most recent month-end, call 800-842-2252 or visit [TIAA.org/planinvestmentoptions](https://www.tiaa.org/planinvestmentoptions) and enter your plan ID. Performance may reflect waivers or reimbursements of certain expenses. Absent these waivers or reimbursement arrangements, performance results would have been lower. Since Inception performance shown is cumulative for periods less than one year.

Target Date Funds

Multi Asset - Non-Registered	Morningstar Category	Inception Date	Total Returns		Average Annual Total Returns				Total Annual Operating Expenses (%/Per \$1000)		Fee Waiver Expiration	Shareholder Fees & Restrictions*
			3 Month	YTD	1 Year	3 Year	5 Year	10 Year/ Since Inception	Gross	Net		
Vanguard Target Retire 2020 Trust Select ^{1,2,3}	Target-Date 2020	06/30/15	4.81%	4.81%	-5.18%	6.97%	4.39%	5.14%	0.05%	0.05%	-	Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
Benchmark: Morningstar Lifetime Mod 2020 TR USD			4.32%	4.32%	-7.95%	6.03%	4.07%	-				
Vanguard Target Retire 2025 Trust Select ^{1,2,3}	Target-Date 2025	06/30/15	5.34%	5.34%	-5.75%	8.46%	4.91%	5.71%	0.05%	0.05%	-	Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
Benchmark: Morningstar Lifetime Mod 2025 TR USD			4.58%	4.58%	-8.37%	6.97%	4.31%	-				

Investment products, insurance and annuity products and investments based on Models: are not FDIC insured, are not bank guaranteed, are not deposits, are not insured by any federal government agency, are not a condition to any banking service or activity, and may lose value.

Multi Asset - Non-Registered	Morningstar Category	Inception Date	Total Returns		Average Annual Total Returns				Total Annual Operating Expenses (%/Per \$1000)		Fee Waiver Expiration	Shareholder Fees & Restrictions*
			3 Month	YTD	1 Year	3 Year	5 Year	10 Year/ Since Inception	Gross	Net		
Vanguard Target Retire 2030 Trust Select ^{1,2,3}	Target-Date 2030	06/30/15	5.67%	5.67%	-6.10%	9.78%	5.33%	6.15%	0.05%	0.05%	-	Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
Benchmark: Morningstar Lifetime Mod 2030 TR USD			4.84%	4.84%	-8.49%	8.55%	4.70%	-				
Vanguard Target Retire 2035 Trust Select ^{1,2,3}	Target-Date 2035	06/30/15	5.95%	5.95%	-6.27%	11.24%	5.80%	6.65%	0.05%	0.05%	-	Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
Benchmark: Morningstar Lifetime Mod 2035 TR USD			5.10%	5.10%	-8.22%	10.61%	5.18%	-				
Vanguard Target Retire 2040 Trust Select ^{1,2,3}	Target-Date 2040	06/30/15	6.23%	6.23%	-6.46%	12.68%	6.24%	7.10%	0.05%	0.05%	-	Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
Benchmark: Morningstar Lifetime Mod 2040 TR USD			5.31%	5.31%	-7.81%	12.51%	5.62%	-				
Vanguard Target Retire 2045 Trust Select ^{1,2,3}	Target-Date 2045	06/30/15	6.51%	6.51%	-6.65%	14.13%	6.68%	7.48%	0.05%	0.05%	-	Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
Benchmark: Morningstar Lifetime Mod 2045 TR USD			5.46%	5.46%	-7.50%	13.69%	5.86%	-				
Vanguard Target Retire 2050 Trust Select ^{1,2,3}	Target-Date 2050	06/30/15	6.64%	6.64%	-6.66%	14.27%	6.76%	7.52%	0.05%	0.05%	-	Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
Benchmark: Morningstar Lifetime Mod 2050 TR USD			5.53%	5.53%	-7.33%	14.11%	5.92%	-				
Vanguard Target Retire 2055 Trust Select ^{1,2,3}	Target-Date 2055	06/30/15	6.63%	6.63%	-6.67%	14.25%	6.76%	7.52%	0.05%	0.05%	-	Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
Benchmark: Morningstar Lifetime Mod 2055 TR USD			5.55%	5.55%	-7.33%	14.16%	5.86%	-				
Vanguard Target Retire 2060 Trust Select ^{1,2,3}	Target-Date 2060	06/30/15	6.66%	6.66%	-6.62%	14.29%	6.79%	7.54%	0.05%	0.05%	-	Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
Benchmark: Morningstar Lifetime Mod 2060 TR USD			5.55%	5.55%	-7.36%	14.13%	5.77%	-				
Vanguard Target Retire 2065 Trust Select ^{1,2,3}	Target-Date 2065+	07/24/17	6.65%	6.65%	-6.61%	14.29%	6.79%	8.04%	0.05%	0.05%	-	Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
Benchmark: Morningstar Lifetime Mod 2060 TR USD			5.55%	5.55%	-7.36%	14.13%	5.77%	-				
Vanguard Target Retire Income Trust Select ^{1,2,3}	Target-Date Retirement	06/30/15	4.25%	4.25%	-4.45%	3.89%	3.33%	3.73%	0.05%	0.05%	-	Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
Benchmark: Morningstar Lifetime Mod Incm TR USD			3.56%	3.56%	-5.19%	5.42%	3.75%	-				

Multi Asset - Non-Registered	Morningstar Category	Inception Date	Total Returns		Average Annual Total Returns			10 Year/ Since Inception	Total Annual Operating Expenses (%/Per \$1000)		Fee Waiver Expiration	Shareholder Fees & Restrictions*
			3 Month	YTD	1 Year	3 Year	5 Year		Gross	Net		
Vanguard Target Retirement 2070 Trust Select ^{1,2,3}	Target-Date 2065+	04/06/22	6.65%	6.65%	-	-	-	-5.35%	0.05% \$0.50	0.05% \$0.50	-	Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
Benchmark: Morningstar Lifetime Mod 2060 TR USD			5.55%	5.55%	-	-	-	-				

UNC Risk-Based Models

Multi Asset - Non-Registered	Morningstar Category	Inception Date	Total Returns		Average Annual Total Returns				Total Annual Operating Expenses (%/Per \$1000)		Fee Waiver Expiration	Shareholder Fees & Restrictions*
			3 Month	YTD	1 Year	3 Year	5 Year	10 Year/ Since Inception	Gross	Net		
UNC - Aggressive Growth ^{4,5}	-	01/31/15	6.49%	6.49%	-7.57%	15.76%	7.12%	8.29%	0.44%	0.44%	-	-
Benchmark: Morningstar Aggressive Target Risk TR USD			5.40%	5.40%	-6.86%	15.06%	6.50%	-				
UNC - Capital Preservation ^{4,5}	-	01/31/15	2.86%	2.86%	-4.63%	1.23%	1.67%	1.80%	0.19%	0.19%	-	-
Benchmark: Morningstar Conservative Target Risk TR USD			3.13%	3.13%	-5.30%	1.32%	2.18%	-				
UNC - Conservative ^{4,5}	-	01/31/15	4.22%	4.22%	-6.08%	4.37%	3.17%	3.58%	0.26%	0.26%	-	-
Benchmark: Morningstar Moderately Conservative Target Risk TR USD			3.90%	3.90%	-5.44%	5.06%	3.77%	-				
UNC - Growth ^{4,5}	-	01/31/15	5.96%	5.96%	-7.53%	11.70%	5.93%	6.83%	0.39%	0.39%	-	-
Benchmark: Morningstar Moderately Aggressive Target Risk TR USD			4.88%	4.88%	-6.62%	12.12%	5.81%	-				
UNC - Moderate ^{4,5}	-	01/31/15	5.07%	5.07%	-6.88%	7.97%	4.60%	5.26%	0.33%	0.33%	-	-
Benchmark: Morningstar Moderate Target Risk TR USD			4.33%	4.33%	-6.22%	8.47%	4.80%	-				

The model's underlying investments' performance can be found under the appropriate asset class. Please refer to the RetirePlus Pro Model Portfolio Target Allocations section of this document for information on the model's current target allocations and other important information about your investment through the RetirePlus Pro Model program.

Core Fund Line Up

Equities - Variable Annuity	Morningstar Category	Inception Date	Total Returns		Average Annual Total Returns				Total Annual Operating Expenses (%/Per \$1000)		Fee Waiver Expiration	Shareholder Fees & Restrictions*
			3 Month	YTD	1 Year	3 Year	5 Year	10 Year/ Since Inception	Gross	Net		
CREF Stock Account (R3) (QCSTIX) ^{6,7,8,9}	Allocation-85% + Equity	04/24/15 07/31/52	6.97%	6.97%	-7.07%	16.38%	7.18%	8.98%	0.23%	0.23%	-	Round Trip: If a round trip is made within 60 calendar days, exchanges into the same account will be restricted for 90 calendar days.
Benchmark: Morningstar Aggressive Target Risk TR USD			5.40%	5.40%	-6.86%	15.06%	6.50%	8.11%				
Benchmark: CREF Stock Account Composite Index			6.97%	6.97%	-7.50%	16.57%	7.99%	9.49%				

Equities - Mutual Fund	Morningstar Category	Inception Date	Total Returns		Average Annual Total Returns				Total Annual Operating Expenses (%/Per \$1000)		Fee Waiver Expiration	Shareholder Fees & Restrictions*
			3 Month	YTD	1 Year	3 Year	5 Year	10 Year/ Since Inception	Gross	Net		
American Funds EuroPacific Growth Fund Class R-6 (RERGX) ^{1,10,11}	Foreign Large Growth	05/01/09	9.87%	9.87%	-3.26%	12.13%	3.25%	5.99%	0.46%	0.46%	-	Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
Benchmark: MSCI ACWI Ex USA NR USD			6.87%	6.87%	-5.07%	11.80%	2.47%	4.17%				
Cohen & Steers Institutional Realty Shares (CSRIX) ^{1,12,13}	Real Estate	02/14/00	2.43%	2.43%	-18.02%	11.50%	7.90%	7.43%	0.76%	0.75%	-	Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
Benchmark: FTSE Nareit All Equity REITs TR USD			1.74%	1.74%	-19.40%	10.17%	6.25%	6.45%				
Goldman Sachs Small Cap Value Fund Class R6 (GSSUX) ^{1,14}	Small Blend	07/31/15	0.07%	0.07%	-11.88%	19.98%	3.59%	5.75%	0.98%	0.96%	-	Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
Benchmark: Russell 2000 Value TR USD			-0.66%	-0.66%	-12.96%	21.01%	4.55%	6.59%				
John Hancock Funds Disciplined Value Fund Class R6 (JDVWX) ^{1,13,15}	Large Value	09/01/11	-0.38%	-0.38%	-5.22%	21.37%	7.41%	9.48%	0.66%	0.65%	07/31/24	Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
Benchmark: Russell 1000 Value TR USD			1.01%	1.01%	-5.91%	17.93%	7.50%	9.13%				
MassMutual Mid Cap Growth Fund Class I (MEFZX) ^{1,10,13,14}	Mid-Cap Growth	11/15/10	7.33%	7.33%	-8.02%	15.39%	7.92%	11.33%	0.71%	0.66%	01/31/24	Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
Benchmark: Russell Mid Cap Growth TR USD			9.14%	9.14%	-8.52%	15.20%	9.07%	11.17%				

Equities - Mutual Fund	Morningstar Category	Inception Date	Total Returns		Average Annual Total Returns				Total Annual Operating Expenses (%/Per \$1000)		Fee Waiver Expiration	Shareholder Fees & Restrictions*
			3 Month	YTD	1 Year	3 Year	5 Year	10 Year/ Since Inception	Gross	Net		
MFS Mid Cap Value Fund Class R6 (MVCKX) ^{1,14,15,16}	Mid-Cap Value	02/01/13	0.60%	0.60%	-5.70%	22.03%	8.30%	9.66%	0.63%	0.62%	01/31/24	Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
Benchmark: Russell Mid Cap Value TR USD			1.32%	1.32%	-9.22%	20.69%	6.54%	8.80%	\$6.30	\$6.20		
T. Rowe Price International Discovery Fund I Class (TIDDX) ^{1,10,11,14}	Foreign Small/Mid Growth	12/17/15	5.86%	5.86%	-9.93%	11.76%	2.13%	6.87%	1.08%	1.08%	-	Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund. Redemption Fee: 2.00% if held < 90 days
Benchmark: S&P Global Ex US Small TR USD			5.68%	5.68%	-8.43%	14.60%	1.57%	5.91%	\$10.80	\$10.80		
T. Rowe Price Large-Cap Growth Fund I Class (TRLGX) ^{1,10}	Large Growth	10/31/01	14.18%	14.18%	-14.69%	13.89%	10.19%	14.45%	0.55%	0.55%	-	Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
Benchmark: Russell 1000 Growth TR USD			14.37%	14.37%	-10.90%	18.58%	13.66%	14.59%	\$5.50	\$5.50		
T. Rowe Price QM U.S. Small-Cap Growth Equity Fund I Class (TQAIX) ^{1,10,14}	Small Growth	03/23/16	7.19%	7.19%	-5.82%	14.74%	6.94%	10.79%	0.64%	0.64%	-	Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund. Redemption Fee: 1.00% if held < N/A days
Benchmark: MSCI US Small Cap Growth GR USD			7.63%	7.63%	-11.37%	17.68%	7.17%	11.00%	\$6.40	\$6.40		

Equities - Non-Registered	Morningstar Category	Inception Date	Total Returns		Average Annual Total Returns				Total Annual Operating Expenses (%/Per \$1000)		Fee Waiver Expiration	Shareholder Fees & Restrictions*
			3 Month	YTD	1 Year	3 Year	5 Year	10 Year/ Since Inception	Gross	Net		
MFS International Intrinsic Value Equity CIT Class 4 ^{1,10,11}	Foreign Large Growth	05/14/13	9.23%	9.23%	-3.54%	9.16%	5.36%	7.62%	0.57%	0.57%	-	Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
Benchmark: MSCI EAFE Value NR USD			5.93%	5.93%	-0.31%	14.58%	1.75%	-	\$5.70	\$5.70		
Vanguard Extended Market Index Trust ^{1,2}	-	12/20/22	5.87%	5.87%	-	-	-	6.67%	0.04%	0.04%	-	Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
Benchmark: S&P Completion Index			5.80%	5.80%	-	-	-	-	\$0.40	\$0.40		
Vanguard Institutional 500 Index Trust ^{1,2}	-	12/20/22	7.49%	7.49%	-	-	-	8.04%	0.01%	0.01%	-	Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
Benchmark: S&P 500 TR USD			7.50%	7.50%	-	-	-	-	\$0.10	\$0.10		

Equities - Non-Registered	Morningstar Category	Inception Date	Total Returns		Average Annual Total Returns			10 Year/ Since Inception	Total Annual Operating Expenses (%/Per \$1000)		Fee Waiver Expiration	Shareholder Fees & Restrictions*
			3 Month	YTD	1 Year	3 Year	5 Year		Gross	Net		
Vanguard Total International Stock Index Trust ^{1,2}	-	12/20/22	6.71%	6.71%	-	-	-	7.26%	0.06%	0.06%	-	Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
Benchmark: FTSE Global All Cap ex US Net TR			6.42%	6.42%	-	-	-					

Real Estate - Variable Annuity	Morningstar Category	Inception Date	Total Returns		Average Annual Total Returns			10 Year/ Since Inception	Total Annual Operating Expenses (%/Per \$1000)		Fee Waiver Expiration	Shareholder Fees & Restrictions*
			3 Month	YTD	1 Year	3 Year	5 Year		Gross	Net		
TIAA Real Estate Account (QREARX) ^{8,17,18}	Miscellaneous Sector	10/02/95	-2.41%	-2.41%	0.14%	7.22%	6.21%	6.95%	0.77%	0.77%	-	Transfers out: Limit 1 per quarter. Limitations may apply to any transaction resulting in a balance > \$150,000.

Fixed Income - Mutual Fund	Morningstar Category	Inception Date	Total Returns		Average Annual Total Returns			10 Year/ Since Inception	Total Annual Operating Expenses (%/Per \$1000)		Fee Waiver Expiration	Shareholder Fees & Restrictions*
			3 Month	YTD	1 Year	3 Year	5 Year		Gross	Net		
Vanguard Short-Term Bond Index Fund Institutional Plus Shares (VBIPX) ¹	Short-Term Bond	09/29/11	1.93%	1.93%	-0.30%	-0.80%	1.30%	1.10%	0.04%	0.04%	-	Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
Benchmark: Bloomberg US 1-5 year Government/Credit Float Adjusted TR USD			1.82%	1.82%	-0.33%	-0.79%	1.32%	1.13%				

Fixed Income - Non-Registered	Morningstar Category	Inception Date	Total Returns		Average Annual Total Returns			10 Year/ Since Inception	Total Annual Operating Expenses (%/Per \$1000)		Fee Waiver Expiration	Shareholder Fees & Restrictions*
			3 Month	YTD	1 Year	3 Year	5 Year		Gross	Net		
JPMCB Core Bond Fund-CF ¹	Intermediate Core Bond	06/23/11	3.57%	3.57%	-3.95%	-1.51%	1.51%	1.74%	0.30%	0.30%	-	Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
Benchmark: Bloomberg US Agg Bond TR USD			2.96%	2.96%	-4.78%	-2.77%	0.91%	1.36%				

Fixed Income - Non-Registered	Morningstar Category	Inception Date	Total Returns		Average Annual Total Returns				Total Annual Operating Expenses (%/Per \$1000)		Fee Waiver Expiration	Shareholder Fees & Restrictions*
			3 Month	YTD	1 Year	3 Year	5 Year	10 Year/ Since Inception	Gross	Net		
TCW MetWest Total Return Bond C ¹	Intermediate Core-Plus Bond	04/01/15	3.41%	3.41%	-5.61%	-2.33%	1.17%	1.12%	0.30%	0.30%	-	Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
Benchmark: Bloomberg US Aggregate Bond TR USD			2.96%	2.96%	-4.78%	-2.77%	0.91%	-				
Vanguard Total Bond Market Index Trust ^{1,2}	-	12/20/22	3.17%	3.17%	-	-	-	2.17%	0.02%	0.02%	-	Round Trip: You cannot exchange into the fund within 30 calendar days of exchanging out of the fund.
Benchmark: Bloomberg U.S. Aggregate Float Adjusted Index			3.01%	3.01%	-	-	-	-				

Multi Asset - Variable Annuity	Morningstar Category	Inception Date	Total Returns		Average Annual Total Returns				Total Annual Operating Expenses (%/Per \$1000)		Fee Waiver Expiration	Shareholder Fees & Restrictions*
			3 Month	YTD	1 Year	3 Year	5 Year	10 Year/ Since Inception	Gross	Net		
CREF Social Choice Account (R3) (QCSCIX) ^{6,7,8,9}	Allocation-50% to 70% Equity	04/24/15 03/01/90	5.22%	5.22%	-5.23%	9.42%	5.78%	6.46%	0.19%	0.19%	-	Round Trip: If a round trip is made within 60 calendar days, exchanges into the same account will be restricted for 90 calendar days.
Benchmark: Morningstar Moderate Target Risk TR USD			4.33%	4.33%	-6.22%	8.47%	4.80%	5.74%				
Benchmark: CREF Social Choice Account Composite Index			5.64%	5.64%	-5.70%	9.00%	5.76%	6.64%				

Money Market - Variable Annuity	Morningstar Category	Inception Date	7-Day Yield**	Total Returns		Average Annual Total Returns				Total Annual Operating Expenses (%/Per \$1000)		Fee Waiver Expiration	Shareholder Fees & Restrictions*
				3 Month	YTD	1 Year	3 Year	5 Year	10 Year/ Since Inception	Gross	Net		
CREF Money Market Account (R3) (QCM MIX) ^{6,7,8,9,19,20}	Money Market-Taxable	04/24/15 04/01/88	4.61%	1.08%	1.08%	2.36%	0.79%	1.19%	0.68%	0.18%	0.18%	-	-
Benchmark: iMoneyNet Money Fund Averages-All Government				1.02%	1.02%	2.35%	0.79%	1.12%	0.64%				

You could lose money by investing in the CREF Money Market Account. Because the accumulation unit value of the Account will fluctuate, the value of your investment may increase or decrease. An investment in the Account is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The Account's sponsor has no legal obligation to provide support to the Account, and you should not expect that the sponsor will provide financial support to the Account at any time.

**The current yield more closely reflects the earnings of this investment choice.

Money Market - Mutual Fund	Morningstar Category	Inception Date	7-Day Yield**	Total Returns		Average Annual Total Returns				Total Annual Operating Expenses (%/Per \$1000)		Fee Waiver Expiration	Shareholder Fees & Restrictions*
				3 Month	YTD	1 Year	3 Year	5 Year	10 Year/ Since Inception	Gross	Net		
Vanguard Federal Money Market Fund Investor Shares (VMFX) ^{1,21}	Money Market-Taxable	07/13/81	4.76%	1.10%	1.10%	2.66%	0.92%	1.34%	0.82%	0.11%	0.11%	-	-
Benchmark: FTSE Treasury Bill 3 Month USD				1.12%	1.12%	2.61%	0.95%	1.40%	0.85%				

You could lose money by investing in a money market fund. Although a money market fund seeks to preserve the value of your investment at \$1.00 per share, it cannot guarantee it will do so. An investment in a money market fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. A money market fund's sponsor has no legal obligation to provide support to a money market fund, and you should not expect that the sponsor will provide financial support to a money market fund at any time.

**The current yield more closely reflects the earnings of this investment choice.

Guaranteed - Fixed Annuity	Inception Date	Total Returns		Average Annual Total Returns				Current Rates		
		3 Month	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Rate	Guaranteed Minimum Rate
TIAA Traditional Annuity - Group Supplemental Retirement Annuity ^{22,23,24}	-	0.86%	0.86%	3.38%	3.16%	3.16%	3.23%	-	5.25%	3.00%

Additional Information:

The current rate shown applies to premiums remitted during the month of April 2023 and will be credited through 2/29/2024. This rate is subject to change in subsequent months. Up-to-date rate of return information is available on your plan-specific website noted above or at 800-842-2733. TIAA Traditional guarantees your principal and a minimum annual interest rate. The guaranteed minimum interest rate is 3.00%, and is effective while the funds remain in the contract. The account also offers the opportunity for additional amounts in excess of the guaranteed minimum interest rate. When declared, additional amounts remain in effect for the twelve-month period that begins each March 1 for accumulating annuities and January 1 for payout annuities. Additional amounts are not guaranteed for the future years. All guarantees are subject to TIAA's claims paying ability. For Group Supplemental Retirement Annuity (GSRA) contracts, and subject to the terms of your employer's plan, lump-sum withdrawals and transfers are available from the TIAA Traditional account without any restrictions or charges. After termination of employment additional income options may be available including income for life, income for a fixed period of time, and IRS required minimum distribution payments.

RetirePlus Pro Model Portfolio Target Allocations

Underlying Investment	UNC - Aggressive Growth	UNC - Capital Preservation	UNC - Conservative	UNC - Growth	UNC - Moderate
American Funds EuroPacific Growth Fund® Class R-6	11.0%	1.0%	4.0%	9.0%	6.0%
Cohen & Steers Institutional Realty Shares	6.0%	3.0%	3.0%	5.0%	4.0%
Goldman Sachs Small Cap Value Fund Class R6	3.0%		1.0%	2.0%	1.0%
John Hancock Funds Disciplined Value Fund Class R6	12.0%	5.0%	6.0%	10.0%	9.0%
MassMutual Mid Cap Growth Fund Class I	6.0%		2.0%	5.0%	3.0%
MFS International Intrinsic Value Equity CIT Class 4	11.0%	1.0%	3.0%	8.0%	6.0%
MFS Mid Cap Value Fund Class R6	7.0%		2.0%	5.0%	4.0%
T. Rowe Price Integrated U.S. Small-Cap Growth Equity Fund I Class	3.0%		1.0%	2.0%	1.0%
T. Rowe Price Large-Cap Growth Fund I Class	11.0%	4.0%	6.0%	10.0%	8.0%
Vanguard Extended Market Index Trust	6.0%		2.0%	6.0%	4.0%
Vanguard Institutional 500 Index Trust	12.0%	4.0%	6.0%	10.0%	8.0%
Vanguard Total International Stock Index Trust	12.0%	2.0%	4.0%	8.0%	6.0%
JPMCB Core Bond Fund-CF		10.0%	11.0%	5.0%	8.0%
TCW MetWest Total Return Bond C		10.0%	11.0%	5.0%	9.0%
Vanguard Federal Money Market Fund Investor Shares		20.0%	8.0%		3.0%
Vanguard Short-Term Bond Index Fund Institutional Plus Shares		20.0%	8.0%		3.0%
Vanguard Total Bond Market Index Trust		20.0%	22.0%	10.0%	17.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

IMPORTANT INFORMATION ABOUT RETIREPLUS PRO MODELS

The TIAA RetirePlus Pro® Models are asset allocation recommendations developed in one of three ways, depending on your plan structure: i) by your plan sponsor, ii) by your plan sponsor in consultation with consultants and other investment advisors designated by the plan sponsor, or iii) exclusively by consultants and other investment advisors selected by your plan sponsor whereby assets are allocated to underlying mutual funds and annuities that are permissible investments under the plan. Model-based accounts will be managed on the basis of the plan participant's personal financial situation and investment objectives (for example, taking into account factors such as participant age and risk capacity as determined by a risk tolerance questionnaire).

This material is for informational, educational or non-fiduciary sales opportunities and/or activities only and does not constitute investment advice (e.g., fiduciary advice under ERISA or otherwise), a securities recommendation under all securities laws, or an insurance product recommendation under state insurance laws or regulations to invest through a model or to purchase any security or advice about investing or managing retirement savings. It does not take into account any specific objectives or circumstances of any particular customer, or suggest any specific course of action.

You should consider the investment objectives, principal strategies, principal risks, portfolio turnover rate, performance data, and fee and expense information of each underlying investment carefully before directing an investment based on the model. For a free copy of the program description and the prospectus or other offering documents for each of the underlying investments (containing this and other information), call TIAA at 877-518-9161. Please read the program description and the prospectuses or other offering documents for the underlying investments carefully before investing.

The Plan Fiduciary and the Plan Advisor may determine that an Underlying Investment(s) is appropriate for a Model Portfolio, but not appropriate as a stand-alone investment for a Participant who is not participating in the Program. In such case, Participants who elect to unsubscribe from the Program while holding an Underlying Investment(s) in their Model-Based Account that has been deemed inappropriate as a stand-alone investment option by the Plan Fiduciary and/or the Plan Advisor will be prohibited from allocating future contributions to that investment option(s).

Established Restrictions: Each Plan Participant may, but need not, propose restrictions for his or her Model-Based Account, which will further customize such Plan Participant's own portfolio of Underlying Investments. The Plan Fiduciary is responsible for considering any restrictions proposed by a Plan Participant, and for determining (together with Plan Advisor(s)) whether the proposed restriction is "reasonable" in each case.

No registration under the Investment Company Act, the Securities Act or state securities laws—The Model is not a mutual fund or other type of security and will not be registered with the Securities and Exchange Commission as an investment company under the Investment Company Act of 1940, as amended, and no units or shares of the Model will be registered under the Securities Act of 1933, as amended, nor will they be registered with any state securities regulator. Accordingly, the Model is not subject to compliance with the requirements of such acts, nor may plan participants investing in underlying investments based on the Model avail themselves of the protections thereunder, except to the extent that one or more underlying investments or interests therein are registered under such acts.

No guarantee—Investments based on the Model are not deposits of, or obligations of, or guaranteed or endorsed by TIAA, the Investment Advisor, The Plan or their affiliates, and are not insured by the Federal Deposit Insurance Corporation, or any other agency. An investment based on the Model is not guaranteed, and you may experience losses, including losses near, at, or after the target date. There is no guarantee that investments based on the Model will provide adequate income at and through your retirement. Investors should not allocate their retirement savings based on the Model unless they can readily bear the consequences of such loss.

TIAA RetirePlus Pro is administered by Teachers Insurance and Annuity Association of America ("TIAA") as plan recordkeeper. TIAA-CREF Individual & Institutional Services LLC, Member FINRA, distributes securities products. If offered under your plan, TIAA and CREF annuity contracts and certificates are issued by Teachers Insurance and Annuity Association of America (TIAA) and College Retirement Equities Fund (CREF), New York, NY, respectively. Each is solely responsible for its own financial condition and contractual obligations. Transactions in the underlying investments invested in based on the Model on behalf of the plan participants are executed through TIAA-CREF Individual & Institutional Services, LLC, Member FINRA.

TIAA RetirePlus Pro® is a registered trademark of Teachers Insurance and Annuity Association of America-College Retirement Equities Fund, 730 Third Avenue, New York, NY 10017.

A Note About Risk

Equity risk refers to the risk of loss due to the market price of shares falling. Equity funds and variable annuity accounts generally carry a higher degree of risk than fixed income funds and accounts. Fixed income funds and variable annuity accounts are not guaranteed and are subject to interest rate, inflation and credit risks.

Variable annuity accounts that invest in real estate securities are subject to various risks, including fluctuation in property values, higher expenses or lower income than expected, and potential environmental problems and liability.

Guaranteed investments offer a guaranteed rate of return but such guarantees are subject to the claims-paying ability of the issuing insurance company.

More detailed information on risks applicable to a particular investment option can be found in the prospectus or other product literature.

Fees and Expenses

*Some Plans may allocate plan costs to participants to offset the cost of recordkeeping and other plan services. When the Plan allocates these costs at the investment-level there may be a plan services fee or credit displayed in the "Shareholder fees & restrictions" column. If the costs are allocated at the plan-level (regardless of investment) it is not displayed on the Quarterly Investment Update.

Fee and expense information for the variable return investment options include the Total Annual Operating Expenses expressed as a percentage and a dollar amount based upon a \$1,000 accumulation both as net (after) and gross (before) of expenses. Total Annual Operating Expenses is a measure of what it costs to operate an investment, expressed as a percentage of its assets, as a dollar amount or in basis points. These are costs the investor pays through a reduction in the investment's rate of return. Expense information shown is based on the most recent information available, but may not reflect all updates and may differ slightly from the prospectus due to rounding. Please consult the most recent prospectus or offering document for more detailed information.

For more information on the impact of fees and expenses associated with your plan, please visit TIAA.org/fees. Fees are only one of many factors to consider when making an investment decision.

About the Benchmark

A benchmark provides an investor with a point of reference to evaluate an investment's performance. One common type of benchmark used to compare investment performance is called an index. Indexes are unmanaged portfolios of securities designed to track the performance of a particular segment of the market. For example, a large cap stock fund or account will usually be compared to an index that tracks a portfolio of large-cap stocks. Conversely, a bond fund or account is typically compared to an index that tracks a portfolio of bonds that is comparable to the fund or account's portfolio in terms of credit quality, maturity and liquidity. Each mutual fund or account shown in the table includes performance information for an index that the advisor determined provides a fair comparison of the fund or account's investment performance. Indexes are for comparison purposes only. You cannot invest directly in any index. Index returns do not reflect a deduction for fees or expenses.

Data Providers

Unless otherwise noted, data on nonproprietary investment products, including performance, Morningstar Category and expenses, is provided by Morningstar, Inc. All other data provided by Teachers Insurance and Annuity Association of America - College Retirement Equities Fund. Benchmark performance shown across proprietary and nonproprietary funds/accounts is provided by TIAA with the exception of Since Inception periods calculated using a nonproprietary fund's inception date. TIAA reserves the rights to all proprietary data herein, and is not responsible for any damages or losses arising from any use of this information.

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The Morningstar Category classifies a fund based on its investment style as measured by underlying portfolio holdings (portfolio statistics and compositions over the past three years). If the fund is new

and has no portfolio, Morningstar estimates where it will fall before assigning a more permanent category. When necessary, Morningstar may change a category assignment based on current information.

Important Information

- 1 Accumulations in funds not managed by TIAA may be subject to administrative charges. These charges are subject to change. Please review current documents related to your plan.
- 2 Data provided by The Vanguard Group. Neither TIAA nor its affiliates has independently verified the accuracy or completeness of this information. This collective trust is managed by Vanguard Fiduciary Trust Company, a subsidiary of The Vanguard Group, Inc. and is not a mutual fund. TIAA is not affiliated with The Vanguard Group, Inc. or any of its subsidiaries.
- 3 As Target Retirement Date Funds are actively managed, their asset allocations are subject to change and may vary from those indicated. They invest in many underlying funds and are exposed to the risks of different areas of the market. Please note that, as with all collective trust funds, the principal value of a Target Retirement Date Fund is not guaranteed. The higher a fund's allocation to stocks, the greater the risk. After the target date has been reached, some of these funds may be merged into a fund with a more stable asset allocation. In addition to the fund level expenses these funds are also subject to the expenses of their underlying investments.
- 4 Model Strategy, Model Fees and Expenses and Target Allocations information provided by the Plan Sponsor. Neither TIAA nor its affiliates has independently verified the accuracy or completeness of this information.
- 5 Model performance shown is based on the performance of the underlying investments that were present in the Model's lineup as of the end of the most recent calendar quarter. If a Model's lineup has changed since then, no adjustments have been made to the Model's performance shown here to reflect the revised lineup, and the investments (and their performance) removed from the lineup no longer appear in the fund performance table. However, all the investments (and their performance) in the Model's lineup as of the end of the most recent calendar quarter may continue to be viewed on the fact sheet available on your employer's microsite.
- 6 When more than one inception date is shown, the performance displayed for periods prior to the investment's inception date is hypothetical. The second inception date is that of the fund/account to which such performance is based. Please refer to the investment's performance disclosure for more details.
- 7 Total annual expense deductions, which include investment advisory, administrative, and distribution (12b-1) expenses, and mortality and expense risk charges, are estimated each year based on projected expense and asset levels. Differences between actual expenses and the estimate are adjusted quarterly and are reflected in current investment results. Historically, adjustments have been small.
- 8 The Account's total annual expense deduction appears in the Account's prospectus, and may be different than that shown herein due to rounding. Please refer to the prospectus for further details.
- 9 The performance shown for Class R3 that is prior to its inception date is based on the performance of the Account's Class R1. The performance for these periods has not been restated to reflect the lower expenses of Class R3. If these lower expenses had been reflected, the performance of Class R3 for these periods would have been higher.
- 10 Due to their relatively high valuations which are generally a function of expected earnings growth, growth stocks will be more volatile than value stocks and such earnings growth may not occur or be sustained.
- 11 Securities of foreign issuers may lose value because of erratic market conditions, economic and political instability or fluctuations in currency exchange rates, which may be magnified in emerging markets.

12 Funds that focus their investments in real estate are subject to the risks associated with real estate ownership, including fluctuations in property values, higher expenses or lower income than expected, and potential environmental problems and liability.

13 The net expense ratio reflects a contractual arrangement that has the effect of reducing or limiting the fund's expenses. Without such an arrangement, currently or in the past, returns would have been lower. The arrangement will remain in effect until terminated. Please see the prospectus for details.

14 Securities of smaller companies may be more volatile than those of larger ones, and they are also often less liquid than those of larger companies because there is a limited market for them.

15 Value stocks may perform differently from the market as a whole and may be undervalued by the market for a long period of time.

16 The net expense ratio reflects a voluntary arrangement that has the effect of reducing or limiting the fund's expenses. Without such an arrangement, currently or in the past, returns would have been lower. The arrangement will remain in effect until terminated. Please see the prospectus for details.

17 Funds that focus their investments in a specific sector (such as health care or technology) are more vulnerable to developments that affect those industries or sectors than more broadly diversified funds.

18 The total annual expense deduction, which includes investment management, administration, and distribution expenses, mortality and expense risk charges, and the liquidity guarantee, is estimated each year based on projected expense and asset levels. Differences between actual expenses and the estimate are adjusted quarterly and are reflected in current investment results. Historically, adjustments have been small.

19 You could lose money by investing in the CREF Money Market Account (the "Account"). Because the accumulation unit value of the Account will fluctuate, the value of your investment may increase or decrease. An investment in the Account is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The Account's sponsor has no legal obligation to provide support to the Account, and you should not expect that the sponsor will provide financial support to the Account at any time. Between July 16, 2009 and March 7, 2017, TIAA withheld ("waived") a portion of the Rule 12b-1 distribution and/or administrative expenses for each class of the Account when a class's yield was less than zero. Without this waiver, the total returns of the Account would have been lower. For a period of three years after the date an amount was waived, it was eligible for recoupment by TIAA, under certain conditions. All eligible expenses for this waiver were recouped by July 2018 for Class R3, September 2018 for Class R2 and June 2019 for Class R1. Beginning in 2020, TIAA agreed to a new waiver of a portion of the Rule 12b-1 distribution and/or administrative expenses for each class of the Account when a class's yield is less than zero. This waiver of expenses expired as of December 31, 2021. Without this waiver, the total returns of each class of the Account would have been lower, and could be negative. TIAA may, for a period of three years after the date an amount was waived, recover from the Account a portion of the amounts waived at such time as the class's daily yield would be positive absent the effect of the waiver and, in such event, the amount of recovery on any day will be approximately 25% of the class's yield (net of all other expenses) on that day.

20 iMoneyNet reports yields as of the last Tuesday of the month. Yields for the iMoneyNet Money Fund Report Averages-All Taxable and the annuity account(s) that track this industry average are calculated based on this date.

21 Closed to new investors.

22 The TIAA Traditional Annuity guarantees principal and a specified interest rate (based on TIAA's claims paying ability). It also offers the potential for greater growth through additional amounts, which may be declared on a year-by-year basis by the TIAA Board of Trustees. These additional amounts, when declared, remain in effect for the "declaration year" which begins each March 1. Additional amounts are not guaranteed. For more up to date information please visit your employer's microsite or TIAA.org. TIAA Traditional is a guaranteed insurance contract and not an investment for federal securities law purposes.

23 Accumulations are credited with interest based on when contributions and transfers are received, and your performance will reflect your pattern of contributions. The returns shown in the table reasonably represent what an individual making level monthly premiums would have historically earned over the time periods. Returns for different time periods are calculated in two steps: monthly performance returns are calculated from an accumulation created by a series of level monthly premiums over the prior 10 years (or the inception date of the product if later), and those monthly returns are linked together to determine historical performance for each of the return periods shown.

24 The Current Rates, Minimum Guaranteed Rates and Fees (if applicable) shown for guaranteed annuities are the rates in effect as of the first day of the month following quarter end. Depending upon the contract, these may apply to new money only or to both new money and existing accumulations. See your annuity contract or certificate for details.



BUILT TO PERFORM.

CREATED TO SERVE.

Mutual funds are offered through your plan sponsor's retirement plan, which is recordkept by TIAA. Funds are offered at that day's net asset value (NAV), and the performance is displayed accordingly. Performance at NAV does not reflect sales charges, which are waived through your retirement plan. If included, the sales charges would have reduced the performance as quoted.

Before making your investment choices and completing your enrollment form, you should consider the investment objectives, risks, charges and expenses carefully. Please call 877-518-9161 for paper copies of the product and fund prospectuses and disclosure documents that contain this and other information. Please read the prospectuses and disclosure documents carefully before investing.

Unless otherwise noted, annuity contracts and certificates are issued by Teachers Insurance and Annuity Association of America (TIAA) and College Retirement Equities Fund (CREF), New York, NY. TIAA-CREF Individual & Institutional Services, LLC, Teachers Personal Investors Services, Inc., and Nuveen Securities, LLC, Members FINRA and SIPC, distribute securities products.
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